

Amendment to the Abstract:

The Abstract has been amended. A revised Abstract is attached.

~~A deep layer of a multi-layer disk is accessed in a short time. The~~ In an optical pickup driving apparatus and method, a moving means device is controlled when an objective lens ~~131~~ is moved toward a recording surface and it is detected that the ~~level~~-voltage of the focus error signal has reached a slice level voltage H corresponding to displacement of predetermined magnitude from a reference potential E_r , ~~the~~ The objective lens 131 is moved toward the recording surface by a maximum of an upper limit of a predetermined amount of movement and when the amount of movement of the objective lens ~~131~~ reaches the predetermined amount of movement, so as to move the objective lens ~~131~~ away from the recording surface, ~~and~~ And when it is detected during a period of backward movement of the objective lens, ~~131~~ that the ~~level~~-voltage of the focus error signal has reached the second slice level voltage H corresponding to displacement of predetermined magnitude from the reference potential E, control of beam spot positioning is performed so as to focus an optical spot.

Attachment

ABSTRACT

In an optical pickup driving apparatus and method, a moving device is controlled when an objective lens is moved toward a recording surface and it is detected that the voltage of the focus error signal has reached a slice level voltage H corresponding to displacement of predetermined magnitude from a reference potential E . The objective lens is moved toward the recording surface by a maximum of an upper limit of a predetermined amount of movement and when the amount of movement of the objective lens reaches the predetermined amount of movement, so as to move the objective lens away from the recording surface. And when it is detected during a period of backward movement of the objective lens, that the voltage of the focus error signal has reached the second slice level voltage H corresponding to displacement of predetermined magnitude from the reference potential E , control of beam spot positioning is performed so as to focus an optical spot.